

Psychometric properties of the Iranian version of the Pediatric Quality of Life Inventory™ Short Form 15 Generic Core Scales

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INTRODUCTION The objective of this study was to assess the feasibility, reliability and validity of the Iranian version of the Pediatric Quality of Life Inventory™ 4.0 Short Form 15 Generic Core Scales (PedsQL™ 4.0 SF15) in a sample of Iranian schoolchildren and children with chronic health conditions.

METHODS A total of 1236 schoolchildren and 1183 parents of schoolchildren participated, and 52 children with chronic health conditions and their parents were recruited from an outpatient clinic. Feasibility, internal consistency reliability, test-retest reliability, known-groups discriminant validity and construct validity of the PedsQL™ 4.0 SF15 were determined.

RESULTS The Iranian version of PedsQL™ 4.0 SF15 evidenced minimal missing responses for child self-report and parent proxy-report (0.4% and 0.6%, respectively), generally demonstrated no significant floor or ceiling effects, and achieved acceptable internal consistency reliability for the Total Scale Score ($\alpha = 0.82$ child self-report, 0.84 parent proxy-report) and acceptable test-retest reliability. Schoolchildren and their parents reported significantly higher PedsQL™ 4.0 SF15 scores than paediatric patients with chronic health conditions. Child self-report and parent proxy-report showed poor to good agreement. A four-factor model was confirmed among child self-report and parent proxy-report in the confirmatory factor analyses.

CONCLUSION This study supports the feasibility, reliability and validity of the Iranian version of the PedsQL™ 4.0 SF15 among Iranian children and their parents.

Keywords: children, health-related quality of life, Iran, PedsQL™, short form

INTRODUCTION

There has been increasing international interest in the assessment of health-related quality of life (HRQoL) among children in developing countries, including countries in the Middle East.^(1,2) HRQoL is defined by the World Health Organization as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, and standards and concerns”. It is a broad-ranging concept that is affected in a complex way by a person’s physical health, psychological state, level of independence, social relationships, and his/her relationships to salient features of his/her environment, as delineated by the World Health Organization.⁽³⁾ This theoretical framework was utilised in developing the original PedsQL™ 4.0 Generic Core Scales. Assessment of HRQoL can help provide insights on the burden of disease, identify health inequalities, as well as ensure proper allocation of health resources and tailored interventions – the latter is achieved through the acquisition of a comprehensive understanding of the child’s and family’s experience.⁽⁴⁾ Moreover, HRQoL measures are useful in facilitating physician-patient communication and promoting shared decision-making.⁽⁴⁾

There are a number of generic and disease-specific measures that assess HRQoL in children.^(5,6) While disease-specific

measures provide detailed information about HRQoL in children with chronic health conditions, those measures do not provide a basis for comparison between patients and healthy populations.⁽⁷⁾ Generic measures enable comparisons across population groups.⁽⁸⁾ One such generic measure – the PedsQL™ – is an internationally-used instrument developed to assess the HRQoL of children aged 2–18 years.⁽⁹⁾ The PedsQL™ 4.0 Generic Core Scales can also be used in conjunction with disease-specific modules.^(10–15) The 23-item version of the PedsQL™ 4.0 Generic Core Scales⁽¹⁶⁾ has previously been validated in many countries, including Iran.^(1,2,17–19) In general, these studies have demonstrated that the translated 23-item version has internationally satisfactory psychometric properties. However, if shorter versions with adequate psychometric performance can be established to reduce response burden and limit the cost of data collection, such versions would be desirable.

The PedsQL™ 4.0 SF15 is a shortened, 15-item version of the 23-item PedsQL™ 4.0 Generic Core Scales.⁽²⁰⁾ The original study of the PedsQL™ 4.0 SF15 demonstrated that it had satisfactory measurement properties, particularly so given its brevity.⁽²⁰⁾ Two international studies, one from Japan and the other from Sweden, have also supported the measurement properties of the country-specific translated PedsQL™ 4.0 SF15.^(21,22) The Japanese

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